EXHIBIT G

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INNOLUX CORPORATION,
Petitioner,

v.

PHENIX LONGHORN LLC,
Patent Owner.

IPR2025-00044
Patent 7,557,788 B1

Before KEVIN F. TURNER, MICHAEL J. STRAUSS, and DAVID C. MCKONE, *Administrative Patent Judges.*

STRAUSS, *Administrative Patent Judge.*

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Innolux Corporation ("Petitioner") filed a Petition, Paper 1 ("Pet."), to institute an *inter partes* review of claims 1–3, 5, and 6 (the "challenged claims") of U.S. Patent No. 7,557,788 B1 (Ex. 1001, "the '788 Patent"). Phenix Longhorn LLC ("Patent Owner") timely filed a Preliminary Response, Paper 6 ("Prelim. Resp.").

On March 19, 2025, we responded to a request from Petitioner to respond to arguments provided in the Preliminary Response, specifically addressing issues regarding the *Fintiv* factors[1] under 35 U.S.C. § 314(a), an alleged violation of 37 C.F.R. § 104(b)(3), and whether certain, newly cited references are cumulative with references already reviewed by the USPTO. Ex. 3001. Per that response, we authorized both parties to file supplemental briefings, with Petitioner filing a Reply ("Pet. Reply," Paper 8), and Patent Owner filing a Sur-reply ("PO Sur-reply," Paper 9), addressing the noted issues.

An *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Institution of *inter partes* review, however, is discretionary. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) ("[T]he PTO is permitted, but never compelled, to institute an IPR proceeding."). For the reasons discussed below, we do not institute *inter partes* review.

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[1] *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential).

II. BACKGROUND

A. Real Party in Interest

Petitioner identifies itself as the only real party in interest. Pet. 2. Patent Owner identifies itself as the only real party in interest. Paper 3, 1.

B. Related Proceedings

According to the parties, the '788 Patent is the subject of the following actions: *Phenix Longhorn, LLC v. Innolux Corp.*, No. 2:23-cv-00478-RWS-RSP (E.D. Tex.); and *Phenix Longhorn, LLC v. AU Optronics Corp.*, No. 2:23-cv-00477-RWS-RSP (E.D. Tex.). Pet. 2; Paper 3, 1.

C. The '788 Patent

The '788 Patent is titled "Gamma Reference Voltage Generator." Ex. 1001, Title. Petitioner explains that the brightness versus input voltage curve for a display's image does not match those of a human's vision and establishes a non-linear behavior called "gamma." Pet. 4–5 (citing Ex. 1003 ¶ 43). Due to this mismatch, the curve needs to be adjusted using gamma correction. *Id.* at 5 (citing Ex. 1010, 1:10–60; Ex. 1003 ¶ 44). The '788 Patent indicates gamma correction has been a problem for Thin Film Transistor (TFT) flat panel displays. Ex. 1001, 1:21–22. Often, each display has a different response to the gamma correction reference voltages, which results in a need to generate specific gamma reference voltages for each display's model. *Id.* at 1:24–28.

Traditionally, this problem has been solved using Select-On-Test Resistors, allowing reference voltages to be fine-tuned to the display's requirements using specific resistors. Ex. 1001, 1:30–36, 1:47–2:4, Fig. 1.

However, this process prohibits automatic assembly and testing and requires resistors to be tested, selected, and mounted manually. *Id.* at 1:33–36. The '788 Patent's invention is "a programmable buffer integrated circuit which can be programmed to output a set of gamma correction reference voltages to be used in Liquid Crystal Displays (LCDs)." *Id.* at 2:17–20; *see also id.* at 2:45–50, Figs. 2–3. "[T]he voltage values are stored in non-volatile, programmable memory" such that, "[o]nce programmed, the buffer will continuously output the programmed value [even] if power is removed." *Id.* at 2:20–23. Optical sensors can be supplied with a display to provide feedback to a correction section of the display to achieve a predetermined light matching value. *Id.* at 6:66–7:8. Display optimization algorithms may optimize gamma reference voltage levels at time of manufacture. *Id.* at 6:59–64. The described invention allows "automated assembly of an entire PC board" (*id.* at 2:29–30), "automated test and gamma adjustment" (*id.* at 2:30–31, 3:36–39, Fig. 2), and reprogramming gamma characteristics using gamma reference controllers (e.g., 210 and 220) (*id.* at 2:32–33, 3:39–45, Fig. 2).

D. Challenged Claims

Claims 1 and 3 are illustrative of the challenged claims:

> 1. [0] A method of calibrating a liquid crystal display to a desired gamma curve to compensate for panel to panel manufacturing variations comprising the steps:
>
> [1] a. providing said display with gamma reference control capability which is electrically reprogrammable and non-volatile;

[2] b. testing said display with at least one sensor with optical input, wherein said sensor is separate from said display;

[3] c. varying gamma reference voltage levels on columns of said display by a control circuit, wherein said control circuit is separate from said display

[4] d. optimizing said gamma reference voltage levels using means for executing a predetermined algorithm according to a predetermined criteria and data sensed by said at least one sensor, wherein said means for executing said predetermined algorithm is separate from said display to achieve the desired gamma curve; and

[5] e. storing said gamma reference voltage levels in said gamma reference control capability.

3. [0] A method of programming one or more gamma reference voltage generator integrated circuits attached to a liquid crystal display comprising the steps:

[1] a. selecting one or more columns on said liquid crystal display;

[2] b. applying one or more different gamma voltages to said liquid crystal display columns;

[3] c. storing said applied gamma voltages in reprogrammable, nonvolatile cells in said gamma reference voltage generator integrated circuits appropriate to said selected columns;

[4] d. operating means for executing one or more optimization criteria algorithms based on optical emission corresponding to said selected columns, wherein said means for executing said one or more optimization criteria algorithms is separate from said liquid crystal display;

[5] e. modifying said one or more different applied gamma voltages based on said one or more optimization criteria algorithms;

> [6] f. programming said applied gamma voltages in storage cells in said gamma reference voltage generator integrated circuits appropriate to said selected columns; and
>
> [7] g. repeating steps (d) through (f) until said one or more optimization criteria have been satisfied.

Ex. 1001, 7:24–42, 7:47–8:21 (bracketing added by Petitioner; *see* Pet. vi–vii).

E. Asserted Challenges to Patentability

Claim(s) Challenged	35 U.S.C. §[2]	Reference(s)/Basis
1–3, 5, 6	103(a)	Liaw,[3] Greene[4]
1–3, 5, 6	103(a)	Greene, Da Costa[5]
1, 2, 5, 6	103(a)	Liaw, Greene, Matsui[6]
1, 2, 5, 6	103(a)	Liaw, Da Costa

[2] The Leahy-Smith America Invents Act ("AIA") included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. The '788 Patent issued from application No. 11/743,014 filed May 1, 2007, which is a continuation of application No. 10/746,333, filed December 23, 2003, which claims priority to provisional application No. 60/477,680, filed June 11, 2003. Ex. 1001, codes (21), (22), (60), (63). Because the '788 Patent issued from an application having an effective filing date before March 16, 2013, we apply the pre-AIA version of the statutory basis for unpatentability. Our analysis herein would not be different if we applied AIA versions of the statutes.

[3] U.S. Pat. No. 6,593,934 B1, issued July 15, 2003 (Ex. 1005).

[4] U.S. Pat. No. 6,271,825 B1, issued August 7, 2001 (Ex. 1006).

[5] U.S. Pat. No. 6,100,879, issued August 8, 2000 (Ex. 1007).

[6] U.S. Pat. No. 5,754,150, issued May 19, 1998 (Ex. 1008).

Pet. 14–15. Petitioner submits the Declaration of R. Jacob Baker, Ph.D., P.E., in support of its arguments (Ex. 1003).

III. DISCRETIONARY DENIAL

Relying on the factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) and *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential), Patent Owner asserts we should exercise our discretion under 35 U.S.C. § 314(a) to deny *inter partes* review based on the parallel proceeding in *Phenix Longhorn, LLC v. Innolux Corp.*, No. 2:23-cv-00478-RWS-RSP (E.D. Tex.). Prelim. Resp. 33–40. Patent Owner also argues that we should exercise our discretion and deny institution under 35 U.S.C. § 325(d). *Id.* at 20–32. We need not address Patent Owner's contentions concerning discretionary denial because, as discussed below, Petitioner has not established a reasonable likelihood of prevailing in demonstrating the unpatentability of any challenged claim of the '788 Patent through its Petition.

IV. LEVEL OF ORDINARY SKILL IN THE ART

To determine whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). In assessing the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995)

(citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962–63 (Fed. Cir. 1986)). "[O]ne or more factors may predominate." *Id.*

Petitioner argues that a person of ordinary skill in the art (POSA) "would have had at least a bachelor of science degree in physics, electrical engineering, or the equivalent thereof and three (3) years of experience in circuit design or display technologies." Pet. 12 (citing Ex. 1003 ¶ 24). According to Petitioner "[s]uch a POSA would have had knowledge of integrated circuits, gamma correction, and storage of gamma correction voltage values within memory, and would have understood how to search available literature for relevant publications." *Id.* (citing Ex. 1003 ¶ 24). Patent Owner applies Petitioner's definition for the purposes of the Preliminary Response. Prelim. Resp. 2.

For purposes of this Decision, and based on the current record, we adopt Petitioner's assessment of the level of skill for one of ordinary skill in the art. Pet. 12. This assessment is consistent with the '788 Patent and the asserted prior art, and we apply it in our analysis below.

V. VIOLATION OF RULE 42.104(b)(3)

37 C.F.R. § 42.104(b)(3) states that a petition must "[p]rovide a statement of the precise relief requested for each claim challenged," and that this statement "must identify . . . [h]ow the challenged claim is to be construed," including, "[w]here the claim to be construed contains a means-plus-function or step-plus-function limitation as permitted under 35 U.S.C. 112(f), the construction of the claim must identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function." The parties dispute whether Petitioner has

satisfied its requirements regarding its proposed construction of the "means for executing" limitations recited in the independent claims under Rule 104(b)(3). We discuss the parties' arguments below and determine that Petitioner has not complied with Rule 104(b)(3).

A. The Parties' Arguments

Petitioner contends the only term necessary to be construed is claim 3's phrase "operating [a][7] means for executing one or more optimization criteria algorithms based on optical emission corresponding to said selected columns" of Limitation 3[4]. Pet. 12–13 (citing Ex. 1003 ¶ 60). Petitioner argues "[t]his phrase is a means-plus-function claim under 35 U.S.C. § 112 ¶ 6." Pet. 12 (citing Ex. 1003 ¶ 56).

Petitioner argues "[m]eans-plus-function claims are construed by first identifying the claimed function and then determining the corresponding structure disclosed in the specification that performs that function" and that, "[w]hen a means-plus-function claim recites an algorithm, the specification must disclose an algorithm for performing the claimed function to satisfy the definiteness requirement under 35 U.S.C. § 112." *Id.* at 12–13 (respectively citing *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015) and *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d

[7] Consistent with claim 3's other limitations describing steps of a method of programming one or more gamma reference voltage generator integrated circuits, each limitation beginning with recitation of a verb in the present particle, limitation 3[4] recites a step of operating a "means" (e.g., operating a device) capable of performing the recited function of "executing one or more optimization criteria algorithms based on optical emission corresponding to said selected columns."

1328, 1333 (Fed. Cir. 2008)). Petitioner further argues "[s]imply disclosing a general-purpose computer as the structure for performing the claimed function is insufficient; the specification must disclose the specific algorithm that transforms the general-purpose computer into a special-purpose computer programmed to perform the claimed function." *Id.* at 13 (citing *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)).

Petitioner concludes "[i]n this case, [claim 3's] term 'operating means for executing one or more optimization criteria algorithms . . . ' is indefinite because the '788 Patent does not disclose any specific algorithms as required under *Aristocrat Techs*." Pet. 13 (citing Ex. 1003 ¶ 58). Moreover, arguing that "the term 'operating' is not used with the '788 Patent specification *at all* except to refer to an 'operating current,'" Petitioner contends "there is no corresponding structure [for the argued operating means] recited in the '788 Patent." *Id.* at 13–14 (citing Ex. 1003 ¶ 58).

In the alternative, Petitioner argues "solely for the purposes of this Petition, in the event the Board does not determine that Claim 3 is indefinite, Petitioner proposes that the term be construed to refer to a 'programming interface which executes an optimization algorithm.'" Pet. 14 (citing Ex. 1003 ¶ 59).

Patent Owner responds, contending that, in addition to the Operating Means of claim 3 identified by Petitioner, claims 1 and 5 also include claim limitations (Limitations 1[4] and 5[5], respectively) that include the term "means" that raises a presumption the limitations are subject to interpretation under 35 U.S.C. §112 ¶ 6. Prelim. Resp. 17 (citing *Dyfan LLC v. Target Corp.*, 28 F.4th 1360, 1365 (Fed. Cir. 2022)). In particular, Patent

Owner argues claims 1 and 5's Limitations 1[4] and 5[5] of "means for executing a predetermined algorithm according to a predetermined criteria and data sensed by said at least one sensor" (the "Means for Executing" terms) are subject to interpretation under 35 U.S.C. 112 ¶ 6. *Id.* Patent Owner argues, pursuant to 37 C.F.R. § 42.104(b)(3), "Petitioner was therefore required to, but did not, provide a construction relating to or otherwise rebutting the presumption that the term is a means-plus-function term." *Id.* at 18. According to Patent Owner, "Petitioner's failure to include both the claimed function and the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function, is fatal to the Petition." *Id.* (citing Patent Trial and Appeal Board Consolidated Trial Practice Guide: November 2019, Section II.B.6 (citing 37 C.F.R. § 42.104(b)(3))).

Petitioner replies, contending "Rule 104(b)(3) does not require [means-plus-function] construction where none is warranted and neither Petitioner nor Patent Owner advocated for it." Pet. Reply 3. Petitioner argues "PO's argument fails first and foremost because both parties consistently treated [the Means for Executing] term as not a [means-plus-function] term, making Rule 104(b)(3)'s requirements inapplicable here." *Id.* at 4. Petitioner argues that, until March 27, 2025, when Patent Owner served its Proposed Terms and Claim Elements for Construction in connection with the parallel district court litigation, neither Petitioner nor Patent Owner identified as means-plus-function the Means for Executing Limitations 1[4] and 5[5] as

required by the Eastern District of Texas's Local Patent Rules LPR 3-1[8] and LPR 3-3.[9] *Id.* Petitioner further argues "PO has still refused to identify a structure corresponding to the claimed function" in the related district court litigation and "in the POPR, PO *solely* argues that the art applied fails under a plain and ordinary construction, providing *no alternative analysis* under [a means-plus-function] construction." *Id.* Petitioner also argues that Rule 104(b)(3) does not require Petitioner to propose a means-plus-function construction if neither party had contended as such in the related district court litigation, suggesting that "[c]ases where institution was denied involved *petitioners* taking inconsistent positions . . . which is not the situation here [wherein] PO has taken conflicting positions." *Id.* at 4–5 (citing Prelim. Resp. at 17 (citing *10x Genomics*, IPR2023-01299); *Cambridge Mobile Telem., Inc. v. Sfara, Inc*, IPR2024-00952, Paper 12, 8-9 (PTAB Dec. 13, 2024)).

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[8] LPR 3-1(c) requires a party claiming patent infringement serve on all parties a "Disclosure of Asserted Claims and Infringement Contentions" including "(c) A chart identifying specifically where each element of each asserted claim is found within each Accused Instrumentality, including for each element that such party contends is governed by 35 U.S.C. § 112 (¶ 6), the identity of the structure(s), act(s), or material(s) in the Accused Instrumentality that performs the claimed function."

[9] LPR 3-3(c) requires each party opposing a claim of patent infringement serve on all parties its "Invalidity Contentions" including "(c) A chart identifying where specifically in each alleged item of prior art each element of each asserted claim is found, including for each element that such party contends is governed by 35 U.S.C. § 112 ¶ 6, the identity of the structure(s), act(s), or material(s) in each item of prior art that performs the claimed function."

Petitioner further argues that, although use of the word "means" creates a presumption that 35 U.S.C. § 112(f)[10] applies, the presumption is overcome in the present case because claims 1 and 5 each recites sufficient structure. Pet. Reply 5. According to Petitioner, "[t]he plain and ordinary meaning of 'means for executing a predetermined algorithm . . .' connotes a general-purpose processor, which is understood as structure sufficient to perform the function." *Id.* (citing *Skky, Inc. v. MindGeek, s.a.r.l.*, 859 F.3d 1014, 1020–21 (Fed. Cir. 2017); *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259–60 (Fed. Cir. 2008)).

In the alternative, Petitioner argues "if the Board were to construe the [claims 1 and 5's Means for Executing] term as [means-plus-function], it would be indefinite, because the specification discloses no more structure than what is recited in the claim." Pet. Reply 5. Presenting argument corresponding to that presented in connection with the means term of claim 3's Limitation 3[4] (*see* Pet. 13–14), Petitioner argues "[t]he '788 Patent specification fails to disclose *any* corresponding structure beyond that recited in the claim" and only "refers generally to a 'predetermined algorithm' and 'optimization' without providing any details on the steps involved." *Id.* at 5–6 (citing *Aristocrat Techs.*, 521 F.3d at 1333 (for a computer implemented means-plus-function term the corresponding

[10] With respect to Petitioner's reference to §112(f), based on the effective filing date of the application that issued as the '788 Patent, we apply the pre-AIA version of 35 U.S.C. § 112, paragraph 6. Our determinations herein would be the same under the AIA version of 35 U.S.C. § 112(f), the wording of which is identical.

structure must be the specific algorithm the processor uses); Ex. 1001 3:6–12, 6:48–56, 7:1–9). Thus, according to Petitioner, "[t]his lack of disclosed corresponding structure in the specification—both algorithmically and physically—would render [claims 1 and 5] indefinite if it were construed under § 112(f)." *Id.* at 6 (citing *Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 949–53 (Fed. Cir. 2007)).

Patent Owner replies, arguing that "[t]he Petition's failure to identify and provide a construction for a means-plus function term violates the PTAB's rules and procedures, and Petitioner cannot cure this critical flaw in its Petition via Reply." PO Sur-reply 6 (citing 37 C.F.R. 42.23(b); PTAB Correspondence Granting Petitioner Leave to File a Reply (Ex. 3001) ("Neither Petitioner nor Patent Owner may introduce new evidence in their Reply or Sur-reply.")). Patent Owner further disputes the relevance of the parties' treatment of claim construction in the related district court litigation, arguing "[a]s of the Petition's filing, claim construction had not yet begun in the parallel district court proceeding, and thus no record had been developed as to the term's potential construction." *Id.* (citing Ex. 2005). Finally, Patent Owner argues, in any case, "it is Petitioner's burden to comply with rule 42.104(b)(3) *in its Petition* by presenting the Board with its position on the constructions of means-plus-function limitations." *Id.* at 6–7.

B. Principles of Law—Claim Construction and Rule 104(b)(3)

Because the Petition was filed after November 13, 2018, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), following the standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 42.100(b). In

applying such standard, claim terms are generally given their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art, at the time of the invention and in the context of the entire patent disclosure. *Phillips*, 415 F.3d at 1312–13. "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Claim limitations that include the terms "means" or "means for" are presumed to invoke 35 U.S.C. § 112 ¶ 6. *See Williamson*, 792 F.3d at 1348. The rules governing this *inter partes* review require that "[w]here the claim to be construed contains a means-plus-function . . . limitation as permitted under 35 U.S.C. 112(f)," the Petition has to "identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function." 37 C.F.R. § 42.104(b)(3). The Consolidated Trial Practice Guide[11] states the following:

> Where claim language may be construed according to 35 U.S.C. § 112(f), a petitioner must provide a construction that includes both the claimed function and the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function. 37 C.F.R. § 42.104(b)(3). A party may choose to elaborate why § 112(f) should or should not apply to the limitation at issue. . . . *A*

[11] *See* Consolidated Trial Practice Guide ("Consolidated Practice Guide") available at https://www.uspto.gov/TrialPracticeGuideConsolidated; *see also* 84 Fed. Reg. 64,280 (Nov. 21, 2019).

> *petitioner who chooses not to address construction under § 112(f) risks failing to satisfy the requirement of 37 C.F.R. § 42.104(b)(3).*

Consolidated Practice Guide at 45 (emphasis added).

C. Analysis

i. Claims 1 and 5

Considering the claim language itself, each of independent claims 1 and 5 recites "means for executing." Ex. 1001, 7:36–40, 8:35–37. The use of the term "means" creates a rebuttable presumption that 35 U.S.C. § 112 ¶ 6 applies. *See Williamson*, 792 F.3d at 1348. Consistent with Patent Owner's arguments (Prelim. Resp. 36–39), the Petition does not address the presumption and, more specifically, the Petition does not provide any argument or evidence as to why the presumption is rebutted. Furthermore, even if we were to consider Petitioner's newly presented argument that "[t]he plain and ordinary meaning of 'means for executing a predetermined algorithm . . . ' connotes a general-purpose processor, which is understood as structure sufficient to perform the function" (Pet. Reply 5), such argument is not persuasive as it is not supported by evidence earlier presented in the Petition or otherwise. Furthermore, even if the plain and ordinary meaning of means for executing a predetermined algorithm were a general-purpose processor, for a computer implemented means-plus-function term the corresponding structure must be the specific algorithm implemented by the processor as argued by Petitioner. Pet. Reply 6.

Moreover, we discern little substantive difference between (i) the means for executing one or more optimization criteria algorithms of claim 3's Limitation 3[4], which Petitioner proposes construing to be means-plus-

function language subject to interpretation under 35 U.S.C. § 112 ¶ 6, and (ii) means for executing a predetermined algorithm according to a predetermined criteria as recited by claims 1 and 5's Limitations 1[4] and 5[5]. We are also unpersuaded by Petitioner's argument that the parties' inaction in not earlier presenting a means-plus-function claim construction in connection with the parallel district court litigation overcomes the presumption that Limitations 1[4] and 5[5] are means-plus-function.

Petitioner's citations to *Skky* and *TriMed* do not support Petitioner's assertion that "'means for executing a predetermined algorithm . . . ' connotes a general-purpose processor, which is understood as structure sufficient to perform the function." Pet. Reply. 5.

Skky was an appeal to the Federal Circuit of an *Inter Partes* Review of Skky's patent for "[a] method of wirelessly delivering over the air one or more digital audio and/or visual files from one or more servers to one or more wireless device *means*." *Skky*, 859 F.3d at 1017. The question presented was whether the term "wireless device means" invoked § 112 ¶ 6 because, as argued by Petitioner MindGeek, "the clause in which [the term] appears describes no corresponding function, and instead denotes structure." *Id.* at 1020. The court held that the presumption was overcome because "[a]lthough the term uses the word 'means' and so triggers a presumption, the full term recites structure, not functionality; the claims do not recite a function or functions for the wireless device means to perform, and 'wireless device' is 'used in common parlance . . . to designate structure.'" *Skky* 859 F.3d at 1020 (quoting *TecSec, Inc. v. Int'l Bus. Machs. Corp.*, 731 F.3d 1336, 1347 (Fed. Cir. 2013)). The case did not address whether means for executing a predetermined algorithm connotes a general-purpose processor.

Moreover, unlike *Skky*'s noun phrase "wireless device means," which itself indicates structure (i.e., a wireless device) and stands alone, not followed by functional language, claim 1 and 5's means for executing appear not to include sufficient structure, relying solely on the recitation of functional requirements absent from the claims in *Skky*.

In *TriMed*, the question presented was whether recitation of "fastening means" in claims directed to an implantable medical device invoked a mean-plus-function interpretation. *TriMed*, 514 F.3d at 1259. Finding the recited fastening means function of securing an end portion of a plate was performed by the claim's recitation of holes in an end portion of the plate, the court concluded "[s]ince the claim language clearly identifies the structure for performing the functions in claim 1, it was unnecessary and inappropriate . . . to employ § 112 ¶ 6." *Id.* at 1260. Thus, use of the term "means" will not in and of itself invoke an interpretation under § 112 ¶ 6 if the claim recites structure sufficient to perform the described functions in their entirety. *Id.* at 1259. "Sufficient structure exists when the claim language specifies the exact structure that performs the functions in question without need to resort to other portions of the specification or extrinsic evidence for an adequate understanding of the structure." *Id.* at 1259–60. Unlike the claims in *TriMed*, claims 1 and 5 of the '788 Patent appear not to recite sufficient structure for performing the claimed function of executing a predetermined algorithm according to a predetermined criteria and data sensed by at least one sensor.

For the reasons discussed, it appears that the Means for Executing limitations of claims 1 and 5 should be construed to cover the corresponding structure described in the specification and equivalents thereof, pursuant to

Section 112 ¶ 6, or at least the onus was on Petitioner to explain why this term should not be treated as a means-plus-function term. *See* 37 C.F.R. § 42.104(b)(1). This is especially the case because Petitioner proposes construing substantially the same term in claim limitation 3[4] to be a means-plus-function term (and, indeed, Petitioner asks for an advisory ruling on indefiniteness on that basis). Pet. 12–14. Assuming that the Means for Executing limitations are means-plus-function limitations, which they appear to be, Petitioner was required, pursuant to 37 C.F.R. § 42.104(b)(3), to "identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function." Petitioner provides a section entitled "Claim Construction," but does not identify any portions of the '788 Patent specification that describe the structure, material, or acts corresponding to each claimed function, even as an alternative construction. Pet. 12–14. Nor does Petitioner identify such structure in its Summary of the '788 Patent. Pet. 9 (citing Ex. 1001, 6:48–56, Fig. 2).

Likewise, in its element-by-element analysis, to demonstrate how the Means for Executing limitations of claims 1 and 5 are met by the prior art, Petitioner asserts that Liaw discloses "a CPU (22) that executes optimization algorithms to determine gamma reference voltages based on sensed voltage-to-luminance data from the sensors and predetermined criteria like desired luminance and contrast" and Greene discloses "a predetermined algorithm for optimizing . . . drive signal . . . [that] achieves a desired gamma curve by correcting manufacturing variations to produce a uniform brightness across a display." *Id.* at 31. Here, Petitioner does not identify portions of the '788

Patent Specification disclosing the same or equivalent structures that perform the "executing" functions in connection with its assertions. *Id.*

Accordingly, Petitioner has not identified corresponding structure for performing the recited functions of "optimizing . . . gamma reference voltage levels using means for executing a predetermined algorithm according to a predetermined criteria and data sensed by . . . at least one sensor, wherein said means for executing said predetermined algorithm is separate from [a] display to achieve [a] desired gamma curve" as required under 37 C.F.R. § 42.104(b)(3).

Because Petitioner has not provided constructions, either rebutting the presumption that "means for executing" is a means-plus-function term, or identifying corresponding structure if it is a means-plus-function term, Petitioner has violated Rule 104(b)(3).

ii. Claim 3

Considering the claim language itself, independent method claim 3 recites a step of "operating [a] means for executing one or more optimization criteria algorithms based on optical emission corresponding to said selected columns." Ex. 1001 8:9–11. As discussed above, the use of the term "means" creates a rebuttable presumption that 35 U.S.C. § 112 ¶ 6 applies. *See Williamson*, 792 F.3d at 1348. Petitioner asserts the "phrase is a means-plus-function claim under 35 U.S.C. § 112 ¶ 6." Pet. 12 (citing Ex. 1003 ¶ 56). However, Petitioner asserts the phrase "is indefinite because the '788 Patent does not disclose any specific algorithms as required under *Aristocrat Techs*." *Id.* at 13 (citing Ex. 1003 ¶ 58). In the alternative, "Petitioner

proposes that the term be construed to refer to a 'programming interface which executes an optimization algorithm.'" *Id.* at 13 (citing Ex. 1003 ¶ 59).

Petitioner's argument that claim 3's "*means for executing* . . . " is means-plus-function language (Pet. 12–14) conflicts and is at odds with Petitioner's argument that claims 1 and 5's "*means for executing*" (discussed above) is not means-plus-function language (Pet. Reply 5). In particular, with regard to whether 35 U.S.C. § 112 ¶ 6 applies, Petitioner does not explain why claim 3's "means for executing one or more optimization criteria algorithms based on optical emission corresponding to said selected columns" is distinguishable from claim 1 and 5's "means for executing a predetermined algorithm according to a predetermined criteria and data sensed by said at least one sensor." Although there are some minor differences between claim 1's and claim 3's recitations of the functions performed by their respective means, we discern no meaningful distinction that would affect our analysis. That Petitioner cites the same art and applies the same reasoning in arguing obviousness of the means and corresponding functions of claims 1 and 3 (*compare* Pet. 31, Limitation 1[4] *with* Pet. 39-40, Limitation 3[4]) further evidences similarity if not equivalency of those limitations.

Moreover, although arguing the means of claim 3 is taught by Liaw's "CPU (22) that executes optimization algorithms to determine gamma reference voltages" and by Greene's photo-sensing means that provides luminance "measurements . . . used in algorithms to determine correction

values" (Pet. 39–40 (citing Ex. 1005,[12] 6:38–56, 5:62–6:12, 7:46–8:4, Fig. 7a)); Petitioner fails to identify the structure, material, or acts corresponding to the claimed function (executing one or more optimization criteria algorithms) as required by 37 C.F.R. § 42.104(b)(3). Instead, Petitioner argues "[t]he '788 Patent specification fails to disclose any corresponding structure beyond that recited in the claim," thereby rendering the claim indefinite. *Id.* at 5–6*; see also* Pet. 13 ("[T]he '788 Patent does not disclose any specific algorithms as required under *Aristocrat Techs*."). However, Petitioner's assertion that the '788 Patent is deficient does not excuse Petitioner's failure to provide the required claim construction.

Petitioner's alternative argument that the corresponding structure is a programming interface which executes an optimization algorithm is also insufficient because Petitioner fails to explain whether it considers a programming interface to be corresponding structure to a means-plus-function limitation and identify where in the Specification the corresponding structure is described, or whether it advances a programming interface as an alternative non-means-plus-function construction. In any case, Petitioner's own argument that "for a computer implemented [means-plus-function] term, the corresponding structure must be the specific algorithm the processor uses" (Pet. Reply 6) undermines the sufficiency of Petitioner's identification of a programming interface to satisfy § 42.104(b)(3) without also identifying an algorithm for providing the claimed function of executing

[12] Petitioner's pin cites in connection with Limitation 3[4] mistakenly reference Ex. 1006 for Liaw rather than Ex. 1005. Pet. 39.

one or more optimization criteria algorithms based on optical emission corresponding to said selected columns.

Nor will we opine on Petitioner's contention that the claim terms are indefinite. The scope of an *inter partes* review is limited to grounds that could be raised under 35 U.S.C. §§ 102 and 103. 35 U.S.C. § 311(b). Indefiniteness is not one of those grounds.

For these reasons, Petitioner's proposed claim construction is deficient and fails to comply with the requirements of 37 C.F.R. § 42.104(b)(3).

D. Conclusion

For the foregoing reasons, we determine that the Petition fails to satisfy the requirements of 37 C.F.R. § 42.104(b)(3). Accordingly, based on this failure alone, we decline to institute an inter partes review.

VI. OBVIOUSNESS

A. Principles of Law—Obviousness

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time of the invention to a person having ordinary skill in the art. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence

of non-obviousness, if present. [13] *See Graham*, 383 U.S. at 17–18. When evaluating a claim for obviousness, we also must "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

B. Obviousness of Claims 1–3, 5, And 6

Petitioner argues that the combination of Liaw and Greene renders claims 1–3, 5, and 6 obvious, the combination of Green and Da Costa renders also renders claims 1–3, 5, and 6 obvious, the combination of Liaw, Greene and Matsui renders claims 1, 2, 5, and 6 obvious, and the combination of Liaw and Da Costa also renders claims 1, 2, 5, and 6 obvious (collectively, the asserted combinations). Pet. 14–15. For the reasons that follow, including Petitioner's violations of Rule 104(b)(3), we determine that Petitioner does not establish a reasonable likelihood that it would prevail in showing that any of the asserted combinations of Liaw, Greene, Matsui, and Da Costa renders these claims obvious.

i. Independent Claims 1, 3 and 5

To resolve the patentability of the challenged claims, we must ascertain the "differences between the prior art and the claims at issue." *Graham*, 383 U.S. at 17. In the context of claims that invoke 35 U.S.C. § 112 ¶ 6, "a challenger who seeks to demonstrate that a means-plus-function limitation was present in the prior art must prove that the

[13] Patent Owner does not present arguments or evidence of such objective evidence of non-obviousness. *See generally* Prelim. Resp.

corresponding structure—or an equivalent—was present in the prior art." *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 582 F.3d 1288, 1299 (Fed. Cir. 2009) (citing *In re Donaldson Co.*, 16 F.3d 1189, 1193 (Fed. Cir. 1994)).

As discussed above, the Means for Executing recitations in claims 1 and 5 presumptively invoke 35 U.S.C. § 112 ¶ 6 and Petitioner has not meaningfully or persuasively rebutted that presumption. Thus, we proceed under the assumption that the Means for Executing recitations are means-plus-function limitations. However, Petitioner has not identified, in the specification of the '788 Patent, structure corresponding to the functions of the Means for Executing limitations. As also discussed above, the means recitation in claim 3 invokes 35 U.S.C. § 112 ¶ 6 and Petitioner has not identified, in the specification of the '788 Patent, structure corresponding to the functions of that means limitation. Because Petitioner has not identified structure corresponding to the functions recited in claims 1, 3, and 5, or explained how that structure is taught by the prior art, Petitioner has not presented us with evidence sufficient to ascertain the differences between the claimed invention and the asserted prior art, as required. *Graham*, 383 U.S. at 17.

Accordingly, we conclude that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing claims 1, 3, and 5 are unpatentable under 35 U.S.C. § 103(a) as obvious over the asserted combinations of Liaw, Greene, Matsui, and Da Costa. This is an additional reason to deny the Petition.

Dependent Claims 2 and 6

Claim 2 depends directly from claim 1 and claim 6 depends directly from claim 5. Petitioner's arguments and evidence for dependent claims 2

and 6 do not remedy the deficiencies discussed with respect to claims 1 and 5. Accordingly, we conclude that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing that claims 2 and 6 are unpatentable under 35 U.S.C. § 103(a) as obvious in view of the asserted combinations of Liaw, Greene, Matsui, and Da Costa.

VIII. CONCLUSION

We have considered all the parties' arguments and evidence. Because the Petition fails to rebut the presumption that claim 1 and 5's "means for executing a predetermined algorithm according to a predetermined criteria and data sensed by said at least one sensor" is a means-plus-function term and fails to identify corresponding structure in the Specification corresponding to this term or for claim 3's "means for executing one or more optimization criteria algorithms based on optical emission corresponding to said selected columns," the Petition does not comply with our rules or show a reasonable likelihood that Petitioner would prevail in showing that any claim of the '788 Patent is unpatentable over the asserted prior art.

ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied*, and no trial is instituted.

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